APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,409	01/09/2001	Joseph Rinchiuso	CE08355R	6389

22917	7590	07/13/2004		EXAMINER

MOTOROLA, INC.
1303 EAST ALGONQUIN ROAD
IL01/3RD
SCHAUMBURG, IL 60196

	EXAMINER
	CHO, HONG SOL

ART UNIT	PAPER NUMBER
2662	2

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/757,409	RINCHIUSO, JOSEPH
	Examiner	Art Unit	
	Hong Cho	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-25* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-25* is/are rejected.
7) ☒ Claim(s) *11, 23* is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>09 January 2001</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

2.   Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Rimhagen et al (U.S 6721278), hereinafter referred to as Rimhagen,

in view of Scholefiled et al (U.S 5752193), hereinafter referred to as

Scholefiled.

Re claims 1(a, b, c, and d), 10, 13 (a, b, c, and d), and 22, Rimhagen

discloses allocating at least one shared radio resource (**"allocating data

resources in the cell", column 6, lines 3-4)** within a communication

system including at least one base station adapted to manage data

service access requests (**"the determination of which competing users

are to be afforded data packet channels is determined by central

processor of base station controller", column 5, lines 55-57),** the

method comprising a controller programmed to: a) determining whether a

number of existing data service requests exceeds the number shared

radio resources/supplemental channels (**"data packet channels") ("the

first basic step involves counting the data resources available in cell**

at any given instant", column 5, lines 59-61); b) servicing each of the

existing data services access requests on a first-in-highest-priority ("user

ranking") basis when the number of existing data service access

requests does not exceed the number of shared radio resources ("the

allocation of the available resources to the requesting users can be

accomplished using many different techniques", column 8, lines 23-

26; "any unused resources are passed on the next user in turn";

"The maximum number of available resources must not be

exceeded", column 8, lines 41-43); c) assigning a priority value ("user

ranking") to each of the existing data service access requests when the

number of existing data service requests exceeds the number of shared

radio resources ("a method of dynamically allocating packet data

radio channels among users competing in a same cell for the

channels involves determining a user ranking for each of plural

competing users in a cell, and classifying each of the plural

competing users into one of plural ranking classes ", column 2, lines

40-45); d) servicing each of the existing data service access requests

based on the respective priority values assigned thereto ("each ranking

class is assigned a share of the available resources data given

instant of time", column 7, lines 41-43).

Re claim 13, Rimhagen fails to disclose an apparatus comprising of

supplemental channel circuits. However, it is well known in the art of 3G

wireless communications to use supplemental channel circuits for data

transmissions between remote units and a central. It would have been obvious to one of ordinary skill in the art to modify Rimhagen's system by adding to it supplemental channel circuits so that it can be adapted to 3G wireless communications which is a commonly used standard.

Re claims 1(e), 2(f), 13(e), and 14(f), Rimhagen does not teach adjusting the priority value assigned to each of the existing data service access requests when a new data service access request is received (claims 1(e) and 13(e)), and servicing each of the existing data service access requests based on adjusted priority values (claims 2(f) and 14(f)). However, Scholefield teaches the above limitation **("when a higher priority message is received, completion of a lower priority message is deferred and the higher priority request allowed to proceed, column 3, lines 1-4).** In view of this, having the concept of Scholefield and then given the teaching of Rimhagen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the process of overriding priorities of the existing data service access requests when a new data service access request is received. The motivation to combine is to get the benefit taught by Scholefield since Scholefield states at column 3, lines 4-6 that an improved access procedure is provided that allows for quicker access times as the priority of the data traffic increases.

Re claims 3, 6, 8, 15, 18, and 20, as explained in the rejection of claim 1c) and d), Rimhagen's system inherently includes transmitting data for each

data service access request that is serviced (claims 3 and 15); assigning a

frame count value of at least one to each of data service access request,

because this is necessary to perform data transmission (claims 6 and 18);

and servicing each of existing data service access request based on a

frame count value assigned (claims 8 and 20).

Re claims 7 and 19, Rimhagen does not teach incrementing a frame count

value after each transmission of data frame. However, it would have been

obvious to one having ordinary skill in the art at the time the invention was

made to add the feature of incrementing a frame count after each

transmission of packet frame in order to keep track of the frames that have

yet to be transmitted.

Re claims 4 and 16, Rimhagen's system inherently includes a summer, a

modulator, and a controller in base station, which are commonly included

in broadband communication systems since the shared radio resources

(communication channels) are timely multiplexed, data frames are

transmitted in a timely manner (predetermined time period).

Re claims 5 and 17, Rimhagen does not disclose servicing a first plurality

of existing data service access requests on a first-in-highest-priority basis

when the priority values for the first plurality of existing data service

access requests are the same. However, it would have been obvious to

one having ordinary skill in the art at the time the invention was made to

add the feature of servicing access request on a first-in-highest-priority

basis when the priority values for the first plurality of existing data service

access requests are the same. It is well known in the art of

communication systems that the concept of first in and first out (FIFO) is

utilized in TDMA or slotted ALOHA packet transmission.

Re claims 12 and 24, Rimhagen discloses a method of determining a

priority value **("ranking value")** for an existing data service access

request based on at least one resource priority parameter **("performance**

measures") such as number of data frames queued **("remaining**

packets"), signal-to-noise ratio, FER, BER **("radio link quality")**, and

transmission delay **("maximum delay")**. See column 2, lines 60-67.

Regarding Claim 9 and 21, Rimhagen discloses a method of granted

priority **("ranking user priority")** to an existing data service access

request with a lowest frame count value **("a number of remaining**

packets"). See column 2, lines 60-67.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made

in this Office action:

(e) the invention was described in (1) an application for patent, published under section
122(b), by another filed in the United States before the invention by the applicant for patent or
(2) a patent granted on an application for patent by another filed in the United States before
the invention by the applicant for patent, except that an international application filed under
the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an
application filed in the United States only if the international application designated the United
States and was published under Article 21(2) of such treaty in the English language.

4.   Claim 25 is rejected under 35 U.S.C. 102(e) as being unpatentable over

Rimhagen.

Re claim 25, Rimhagen's system inherently includes the method

comprising: a) initializing performance parameters to measure the ranking

(priority) value in resource scheduling and allocation within a base station;

b), c) determining whether to allocate communication resources in

response to data service access request. It is well known process in the

art of communication systems that each system parameter has to go

through the process of initialization before starting to perform.

Furthermore, the process of determining if the requested service by user

is acceptable is commonly used since the available radio resources are

limited in broadband communications.

Re claim 25d), Rimhagen discloses a method of i) scheduling resources to

data service users with priority to users granted access to resources first

as explained in the rejection of in claim 1b), and ii) allocating usage of

assigned resources based on a maximum allocation parameter as

explained in the rejection of claims 1c) and 12 in paragraph 2.

Re claim 25e), Rimhagen discloses a method of i) computing a scheduling

priority value for each data service user using a resource scheduling

function as modified in claim 1c), and ii) scheduling resources to data

service users with priority based on the resource scheduling function as

explained in the rejection of in claim 1b), and iii) allocating usage of

assigned resources based on a maximum allocation parameter as

explained in the rejection of in claims 1c) and 12 in paragraph 2.

Allowable Subject Matter

5.   Claims 11 and 23 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form

including all of the limitations of the base claim and any intervening claims.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- US Patent (6584089) to Honkasalo discloses method of scheduling

  packet data transmission

- US Patent (5748624) to Kondo discloses method of time-slotted

  allocation in a TDMA communication system

- US Patent (5666348) to Thornberg et al discloses packet switched

  radio channel admission control in a cellular telecommunications

  system

- US Patent (5790551) to Chan discloses packet data transmission

  using dynamic channel assignment

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 703-305-0343. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

         If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 703-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

         Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hong Cho
Examiner
Art Unit 2662

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600